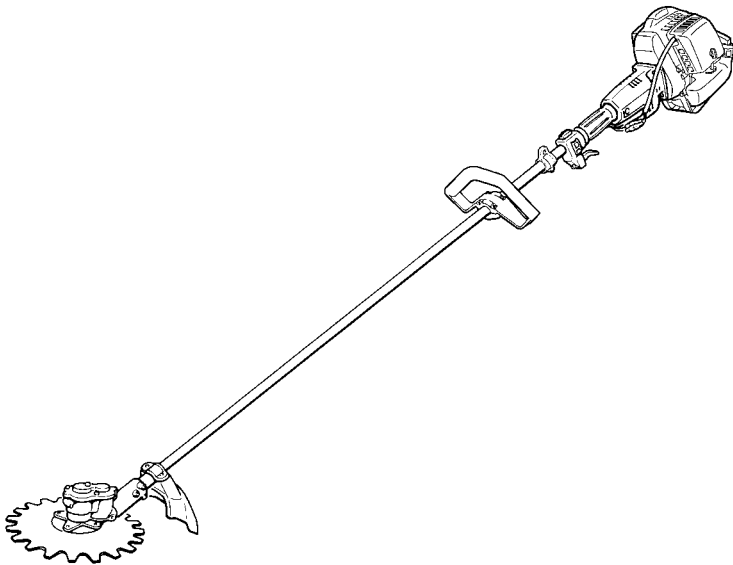




# OWNER/OPERATOR MANUAL

**RECIPROCATOR**

**SGCZ2500S**



## **WARNING**



The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.



## **WARNING**



Before using our products, please read this manual carefully to understand the proper use of your unit.

APPLICABLE SERIAL NUMBERS :


DRIVE UNIT 000101 and up

ENGINE UNIT 2842 and up





## **SAFETY FIRST**

Instructions contained in warnings within this manual marked with a  symbol concern critical points which must be taken into consideration to prevent possible serious bodily injury, and for this reason you are requested to read all such instructions carefully and follow them without fail.

### ■ **WARNINGS IN THE MANUAL**

#### **WARNING**

This mark indicates instructions which must be followed in order to prevent accidents which could lead to serious bodily injury or death.

#### **IMPORTANT**

This mark indicates instructions which must be followed, or it leads to mechanical failure, breakdown, or damage.

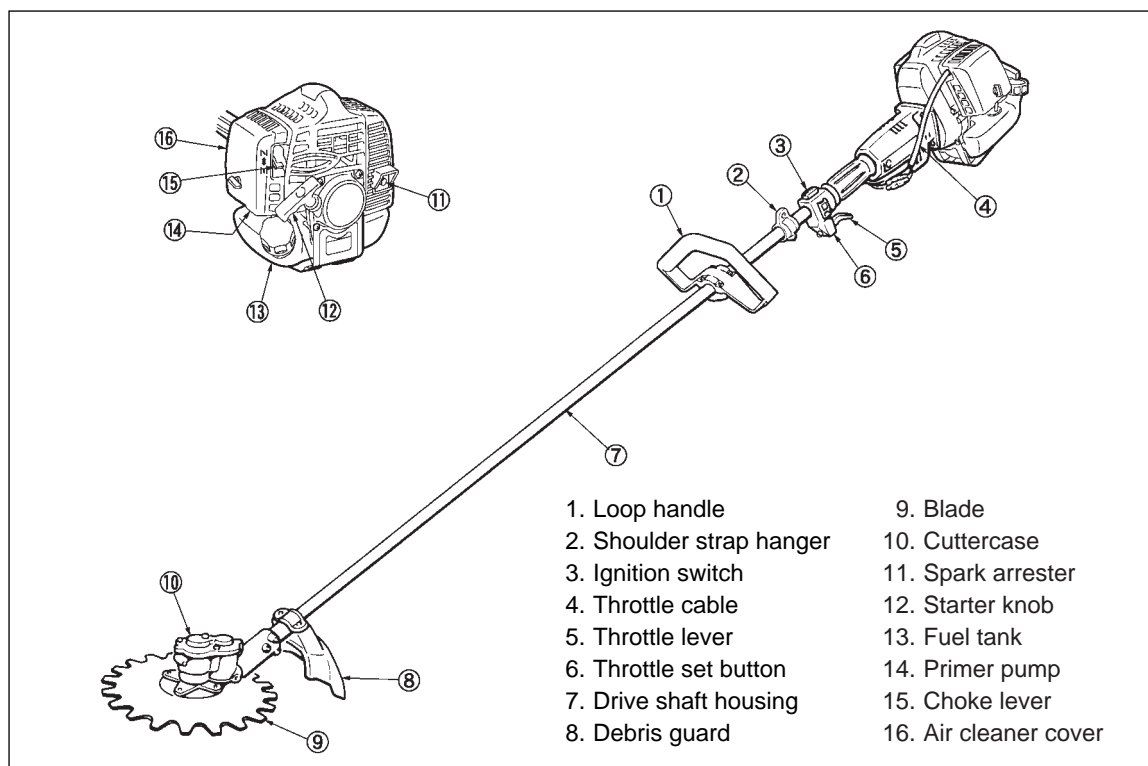
#### **NOTE**

This mark indicates hints or directions useful in the use of the product.

## **CONTENTS**

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# 1. Parts location



## 2. Specifications

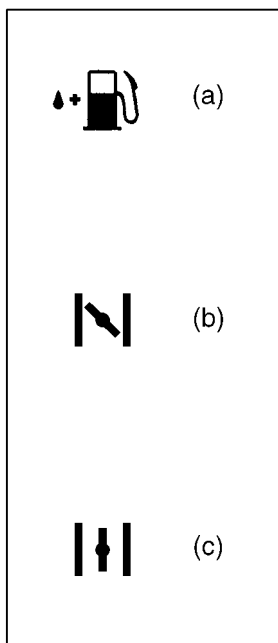
### ■ SGCZ2500S

Overall size(LxWxH).....	76.0(1930)x9.8(250)x9.8(250) in(mm)
Dry weight w/o acc.....	14.8 lbs (6.7kg)
Engine Type.....	Air-cooled 2-stroke gasoline
Model.....	Zenoah GZ25N
Displacement .....	1.6cu-in (25.4cm <sup>3</sup> )
Max. output .....	1.2Hp (0.9kW)at 7500/min <sup>-1</sup> (rpm)
Idle speed.....	3000±200/min <sup>-1</sup> (rpm)
Fuel .....	Mixture(Gasoline 50 : Oil 1)
Carburetor .....	Walbro Diaphragm type
Spark plug.....	NGK CMR7A
Durability period .....	300 hrs
Standard operation speed.....	8000~9500 rpm
Fuel tank capacity.....	22.0 fl.oz (0.65 ℓ )
Transmission .....	Centrifugal clutch, Gear reduction Rigid driveshaft & Crank mechanism
Reduction ratio .....	7.87
Standard Accessories	
Shoulder Strap .....	1 pc.
Goggle.....	1 pc.
Tool Kit .....	1 pc.

Specifications are subject to change without notice.

### 3. Symbols on the machine

---



For safe operation and maintenance, symbols are carved in relief on the machine. According to these indications, please be careful not to take a mistake.

(a) The port to refuel the "MIX GASOLINE"

**Position:** FUEL TANK CAP

(b) The direction to close the choke

**Position:** AIR CLEANER COVER

(c) The direction to open the choke

**Position:** AIR CLEANER COVER

#### IMPORTANT ENGINE INFORMATION

THIS ENGINE MEETS U.S. EPA PH2  
AND 2001 CALIFORNIA EMISSION  
REGULATIONS FOR SI SORE's  
COMPLIANCE PERIOD : CATEGORYA:

**ENGINE FAMILY : 1KZXS.0254QR ; EM**  
**ENGINE DISPLACEMENT : 25.4cc**  
REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.



#### INFORMATION IMPORTANTE CONCERNANT LE MOTEUR

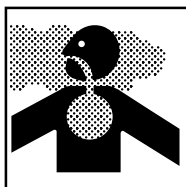
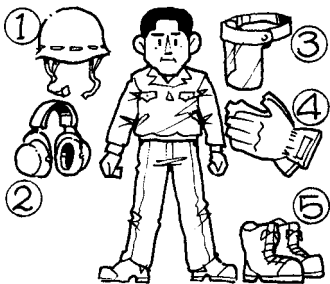
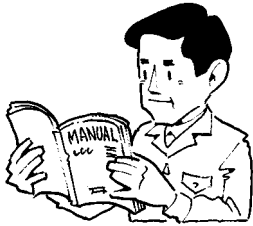
Ce moteur est conforme aux normes U.S.  
EPA PH2 et 2001 ainsi qu'aux autres dispositions  
ultérieures de la réglementation concernant la pollution  
de l'air pour les petits moteurs tout-terrain avec une  
période de accordable : CATEGORYA.

**Type de moteur : 1KZXS.0254QR :EM**  
**Cylindrée du moteur : 25,4cc**  
Se référer au Manuel de l'utilisateur pour les  
spécifications d'entretien et les réglages.





## 4. For safe operation



1. Read this manual carefully until you completely understand and follow all safety and operating instructions.
2. Keep this manual handy so that you may refer to it later whenever any questions arise. Also note, if you have any questions which cannot be answered herein, contact the dealer from whom you purchased the product.
3. Always be sure to include this manual when selling, lending, or otherwise transferring the ownership of this product.
4. Never allow children or anyone unable to fully understand the directions given in the manual to use the machine.

### ■ WORKING CONDITION

1. When using the product, you should wear proper clothing and protective equipment.

#### (1) Helmet

#### (2) Ear protectors

#### (3) Protection goggles or face protector

#### (4) Thick work gloves

#### (5) Non-slip-sole work boots

2. And you should carry with you.

- (1) Attached tools and files
- (2) Properly reserved fuel
- (3) Spare blade
- (4) Things to notify your working area (rope, warning signs)
- (5) Whistle (for collaboration or emergency)
- (6) Hatchet or saw (for removal of obstacles)

3. Do not wear loose clothing, jewelry, short trousers, sandals, or go barefoot. Do not wear anything which might be caught by a moving part of the unit. Secure hair so it is above shoulder length.

### ■ WORKING CIRCUMSTANCE

1. Never start the engine inside a closed room or building. Exhaust gases contain dangerous carbon monoxide.
2. Never use the product,
  - a. when the ground is slippery or when you can't maintain a steady posture.



## 4. For safe operation



- b. At night, at times of heavy fog, or at any other times when your field of vision might be limited and it would be difficult to gain a clear view of the working area.
- c. During rain storms, during lightning storms, at times of strong or gale-force winds, or at any other times when weather conditions might make it unsafe to use the product.



### ■ WORKING PLAN

1. You should never use the product when under the influence of alcohol, when suffering from exhaustion or lack of sleep, when suffering from drowsiness as a result of having taken cold medicine or at any other time when a possibility exists that your judgment might be impaired or that you might not be able to operate the product properly and in a safe manner.
2. When planning your work schedule, allow plenty of time to rest. Limit the amount of time over which the product is to be used continuously to somewhere around 30~40 minutes per session, and take 10~20 minutes of rest between work sessions. Also try to keep the total amount of work performed in a single day under 2 hours or less.



### WARNING

1. If you don't observe the working time, or working manner (See ■ USING THE PRODUCT), Repetitive Stress Injury(RSI) could occur.

If you feel discomfort, redness and swelling of your fingers or any other part of your body, see a doctor before getting worse.

2. To avoid noise complaints, in general, operate product between 8a.m. and 5p.m. on weekdays and 9a.m. to 5p.m. weekends.

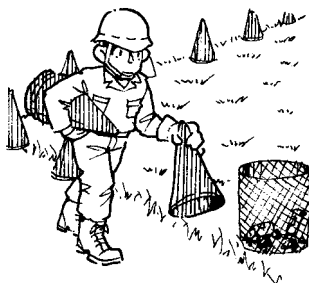


### NOTE

Check and follow the local regulations as to sound level and hours of operations for the product.



## 4. For safe operation



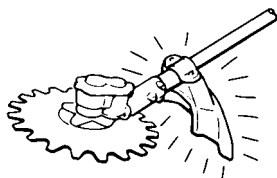
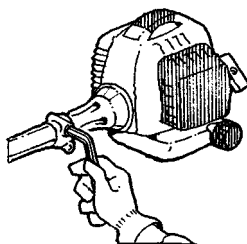
### ■ BEFORE STARTING THE ENGINE

1. The area within a perimeter of 50 feet (15m) of the person using the product should be considered a hazardous area into which no one should enter. If necessary yellow warning rope, warning signs should be placed around the perimeter of the area. When work is to be performed simultaneously by two or more persons, care should also be taken to constantly look around or otherwise check for the presence and locations of other people working so as to maintain a distance between each person sufficient to ensure safety.
2. Check the condition of working area to avoid any accident by hitting hidden obstacles such as stumps, stones, cans, or broken grass.



### IMPORTANT

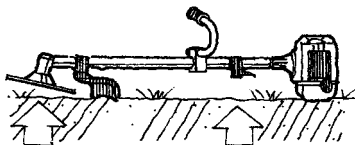
Remove any obstacle before beginning work.



3. Inspect the entire unit for loose fasteners and fuel leakage. Make sure that the cutting attachment is properly installed and securely fastened.
4. Be sure the debris guard is firmly attached in place.
5. Always use the shoulder strap. Adjust the strap for comfort before starting the engine. The strap should be adjusted so the left hand can comfortably hold the handlebar grip approximately waist high.

### ■ STARTING THE ENGINE

1. The product is equipped with a centrifugal clutch mechanism, so the cutting attachment begins to rotate as soon as the engine is started by putting the throttle into the start position. When starting the engine, place the product onto the ground in a flat clear area and hold it firmly in place so as to ensure that neither the cutting part nor the throttle come into contact with any obstacle when the engine starts.





## 4. For safe operation

### WARNING

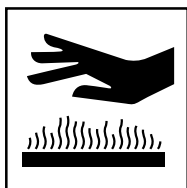
**Never place the throttle into the high speed position when starting the engine.**

2. After starting the engine, check to make sure that the cutting attachment stops rotating when the throttle is moved fully back to its original position. If it continues to rotate even after the throttle has been moved fully back, turn off the engine and take the unit to your authorized Red Max servicing dealer for repair.

### ■ USING THE PRODUCT

### IMPORTANT

**Cut only materials recommended by the manufacturer. And use only for tasks explained in the manual.**



1. Grip the handles firmly with both hands using your whole hand. Place your feet slightly apart (slightly further apart than the width of your shoulders) so that your weight is distributed evenly across both legs, and always be sure to maintain a steady, even posture while working.
2. Keep cutting attachment below waist level.
3. Maintain the speed of the engine at the level required to perform cutting work, and never raise the speed of the engine above the level necessary.
4. If the unit start to shake or vibrate, turn off the engine and check the whole unit. Do not use it until the trouble has been properly corrected.
5. Keep all parts of your body away from rotating cutting attachment and hot surfaces.
6. Never touch the muffler, spark plug, or other metallic parts of the engine while the engine is in operation or immediately after shutting down the engine. Doing so could result in serious burns or electrical shock.



## 4. For safe operation

### • IF SOMEONE COMES

1. Guard against hazardous situations at all times. Warn adults to keep pets and children away from the area. Be careful if you are approached. Injury may result from flying debris.
2. If someone calls out or otherwise interrupts you while working, always be sure to turn off the engine before turning around.



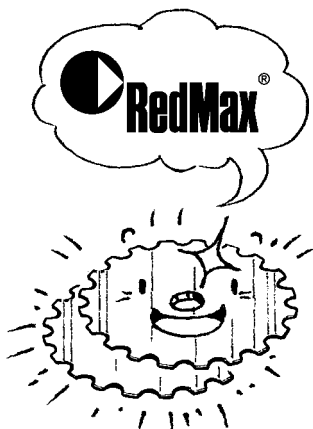
### ■ MAINTENANCE

1. In order to maintain your product in proper working order, perform the maintenance and checking operations described in the manual at regular intervals.
2. Always be sure to turn off the engine before performing any maintenance or checking procedures.



### WARNING

**The metallic parts reach high temperatures immediately after stopping the engine.**



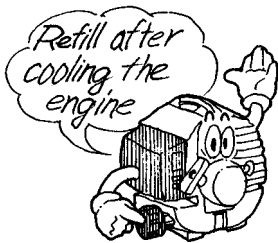
3. When replacing the cutting attachment or any other part, or when replacing the oil or any lubricant, always be sure to **use only RedMax products or products which have been certified by RedMax for use with the RedMax product.**
4. In the event that any part must be replaced or any maintenance or repair work not described in this manual must be performed, please contact a representative from the store nearest RedMax authorized servicing dealer for assistance.
5. Do not use any accessory or attachment other than those bearing the RedMax mark and recommended for the unit.
6. Under no circumstances should you ever take apart the product or alter it in any way. Doing so might result in the product becoming damaged during operation or the product becoming unable to operate properly.

### ■ HANDLING FUEL

1. The engine of the RedMax product is designed to run on a mixed fuel which contains highly flammable gasoline. Never store cans of fuel or



## 4. For safe operation



refill the tank of the unit in any place where there is a boiler, stove, wood fire, electrical sparks, welding sparks, or any other source of heat or fire which might ignite the fuel.

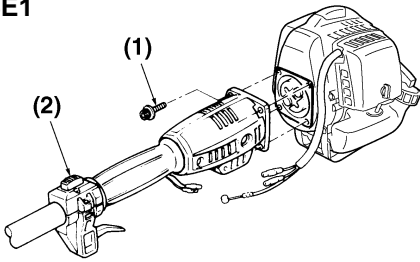
2. Never smoke while operating the unit or refilling its fuel tank.
3. When refilling the tank, always turn off the engine and allow it to cool down. Take a careful look around to make sure that there are no sparks or open flames anywhere nearby before refueling.
4. Wipe spilled fuel completely using a dry rag if any fuel spillage occurs during refueling.
5. After refueling, screw the fuel cap back tightly onto the fuel tank and then carry the unit to a spot 10 feet or more away from where it was refueled before turning on the engine.

### ■ TRANSPORTATION

1. When hand-carrying the product, cover over the cutting part if necessary, lift up the product and carry it paying attention to the blade.
2. Never transport the product over rough roads over long distances by vehicle without removing all fuel from the fuel tank. If doing so, fuel might leak from the tank during transport.

## 5. Set up

SE1



### ■ MOUNTING ENGINE (SE1)

1. Install the engine to the driveshaft so that the cylinder head and the stop switch may come on the same side.
2. Using attached four bolts, secure the connection firmly with equal force (Torque: 25in-lbs)(Torque: 2.8 N.m.).

(1) Bolt

(2) Stop switch

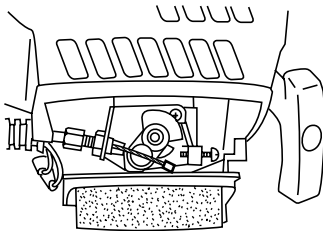
### ⚠ WARNING

Never use any screws other than those specified by the manufacturer, or the engine can get loose, resulting in a hazardous event.

### ❗ IMPORTANT

Tighten the screws gradually by turns.

SE2



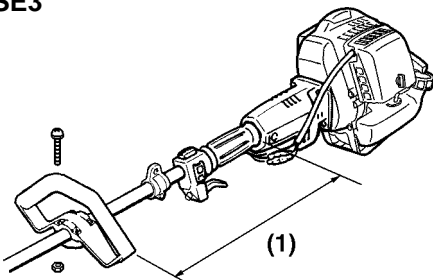
### ■ CONNECTING THROTTLE WIRE

1. Remove the air cleaner cover.
2. Connect the end of the throttle wire to the joint on the top of the carburetor. (SE2)

### ■ CONNECTING SWITCH WIRES

- Connect the switch wires between the engine and the main unit. Pair the wires of the same color.

SE3



### ■ INSTALLING HANDLE

- Mount the handle to the shaft tube and clamp it at a location that is comfortable to you. (SE3)

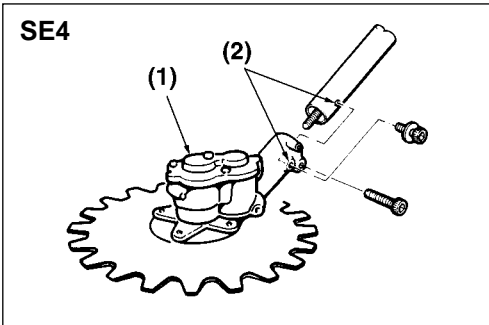
(1) About 19 inches (48cm)

## 5. Set up

### ■ BLADE CUTTERCASE (SE4)

#### **WARNING**

The blade has very sharp edges. Be sure to use protective gloves whenever handling it.



1. Remove the fastening screw (long) and the lock screw (short) from the cuttercase.
2. While aligning the locking holes (cuttercase hole, spacer hole, and shaft casing hole) install the cuttercase assembly to the shaft casing. If it will not bottom, twist the case slightly back and forth.
3. Align the locking holes and make sure that the locking screw (short) is fastened to the bottom by hand, then secure it with wrench.

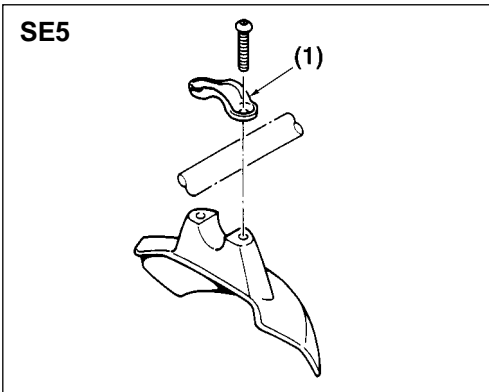
(1) Cuttercase

(2) Locking holes

#### **NOTE**

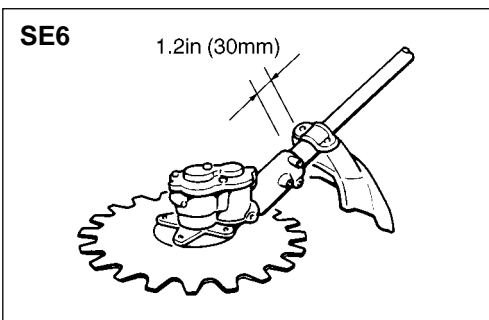
If the locking screw is tightened up with the holes out of alignment, the cuttercase may be damaged.

4. Fasten the cuttercase fastening screw (long).

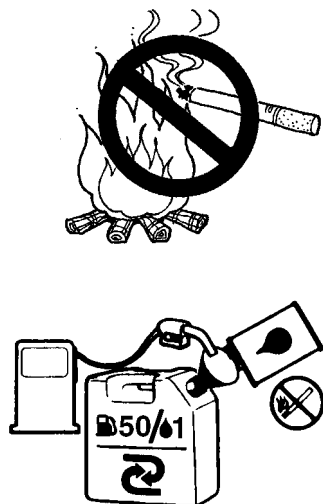


### ■ DEBRIS GUARD

Install the debris guard onto the shaft housing approx. 1.2inches (30mm) away from the cuttercase. Fasten the clamp uniformly. (SE5, SE6)



## 6. Fuel



50:1 MIXING CHART

GASOLINE	gal.	1	2	3	4	5
2-CYCLE OIL	fl.oz	2.6	5.2	7.8	10.4	13

GASOLINE	liter	1	2	3	4	5
2-CYCLE OIL	ml	20	40	60	80	100

### ⚠ WARNING

- Gasoline is very flammable. Avoid smoking or bringing any flame or sparks near fuel. Make sure to stop the engine and allow it cool before refueling the unit. Select outdoor bare ground for fueling and move at least 3m(10ft) away from the fueling point before starting the engine.
- The RedMax engines are lubricated by oil specially formulated for air-cooled 2-cycle gasoline engine use. If RedMax oil is not available, use an anti-oxidant added quality oil expressly labeled for air-cooled 2-cycle engine use. (JASO FC GRADE OIL or ISO EGC GRADE)

### RECOMMENDED MIXING RATIO GASOLINE 50:OIL 1

- Exhaust emission are controlled by the fundamental engine parameters and components(eq., carburation, ignition timing and port timing) without addition of any major hardware or the introduction of an inert material during combustion.
- These engines are certified to operate on unleaded gasoline.
- Make sure to use gasoline with a minimum octane number of 90 ROZ(USA/Canada : pump octane min.87)
- Unleaded gasoline is recommended to reduce the contamination of the air for the sake of your health and the environment.
- Poor quality gasolines or oils may damage sealing rings, fuel lines or fuel tank of the engine.

### ■ HOW TO MIX FUEL

1. Measure out the quantities of gasoline and oil to be mixed.
2. Put some of the gasoline into a clean, approved fuel container.
3. Pour in all of the oil and agitate well.
4. Pour in the rest of gasoline and agitate again for at least one minute.
5. Put a clear indication on the outside of the

## 6. Fuel

---

container to avoid mixing up with gasoline or other containers.

6. Indicate the contents on outside of container for easy identification.

### ■ FUELING THE UNIT

1. Untwist and remove the fuel cap. Rest the cap on a dustless place.
2. Put fuel into the fuel tank to 80% of the full capacity.
3. Fasten the fuel cap securely and wipe up any fuel spillage around the unit.

### **WARNING**

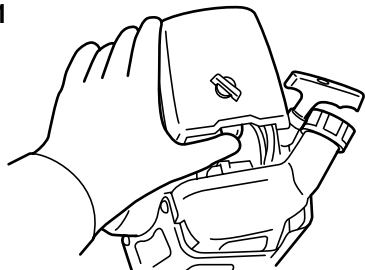
1. Select bare ground for fueling.
2. Move at least 10 feet (3 meters) away from the fueling point before starting the engine.
3. Stop the engine before refueling the unit.

### **FOR YOUR ENGINE LIFE, AVOID;**

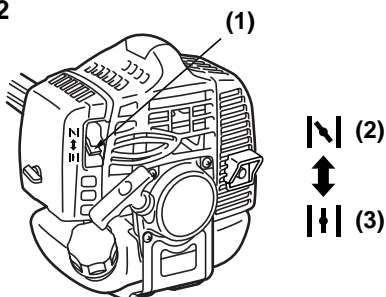
1. FUEL WITH NO OIL(RAW GASOLINE) – It will cause severe damage to the internal engine parts very quickly.
2. GASOHOL – It can cause deterioration of rubber and/or plastic parts and disruption of engine lubrication.
3. OIL FOR 4-CYCLE ENGINE USE or WATER COOLED 2-CYCLE ENGINE USE – It can cause spark plug fouling, exhaust port blocking, or piston ring sticking.
4. **Mixed fuels which have been left unused for a period of one month or more** may clog the carburetor and result in the engine failing to operate properly.

## 7. Operation

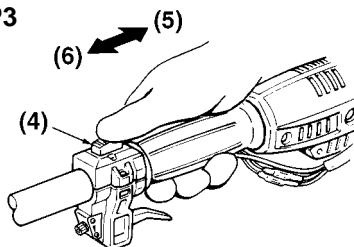
OP1



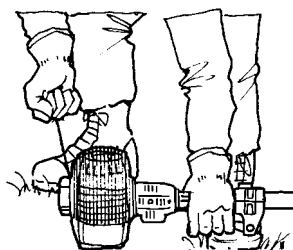
OP2



OP3



OP4



### ■ STARTING ENGINE

#### ⚠ WARNING

The cutting head will start rotating upon the engine starts.

1. Rest the unit on a flat, firm place. Keep the cutting head off the ground and clear of surrounding objects as it will start rotating upon starting of the engine.
2. Push the primer pump several times until overflowed fuel flows out in the clear tube. (OP1)
3. Move the choke lever to the closed position. (OP2)
4. Set the ignition switch to the “start” position. (OP3)
5. While pulling the throttle lever, pull out the starter rope quickly until engine fires. (OP4)

(1) choke lever (2) close (3) open  
(4) ignition switch (5) start (6) stop

#### ⚠ IMPORTANT

- Avoid pulling the rope to its end or returning it by releasing the knob. Such actions can cause starter failures.
6. Move the choke lever downward to open the choke. And restart engine. (OP2)
  7. Allow the engine to warm up for a several minutes before starting operation.

#### 📖 NOTE

1. When restarting the engine immediately after stopping it, leave the choke open.
2. Overchoking can make the engine hard to start due to excess fuel. When the engine failed to start after several attempts, open the choke and repeat pulling the rope, or remove the spark plug and dry it.

### ■ STOPPING ENGINE (OP3)

1. Release the throttle lever and run the engine for a half minute.
2. Shift the ignition switch to the STOP position.

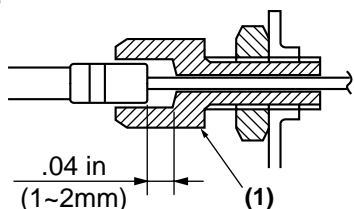
#### ⚠ IMPORTANT

- Except for an emergency, avoid stopping the



## 7. Operation

OP5



engine while pulling the throttle lever.

### ■ ADJUSTING THROTTLE CABLE

- The normal play is 1 or 2mm when measured at the carburetor side end. Readjust with the cable adjuster as required. (OP5)

#### (1) cable adjuster

### ■ ADJUSTING IDLING SPEED (OP6)

1. When the engine tends stop frequently at idling mode, turn the adjusting screw clockwise.
2. When the cutting head keeps rotating after releasing the trigger, turn the adjusting screw counter-clockwise.

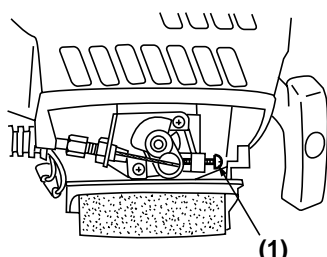
#### (1) idle adjusting screw



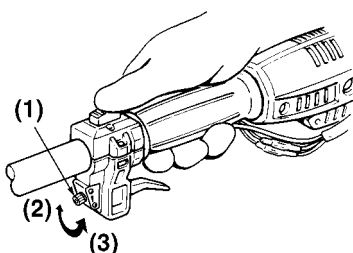
### NOTE

- Warm up the engine before adjusting the idling speed.

OP6



OP7



### ■ ADJUSTING THE MAXIMUM SPEED

- The screw at the throttle lever is for adjusting the maximum rpm. (OP7)
- Turning the screw crock-wise, the rpm becomes down, the otherwise, the rpm becomes up. (STANDARD OPERATION SPEED: 8000~9500 rpm)

Running engine with faster engine speed than 9500 rpm may damage the engine, slower engine speed than 8000 rpm may cause of the poor cutting ability.

#### (1) adjust screw (2) down (3) up

### ■ USAGE

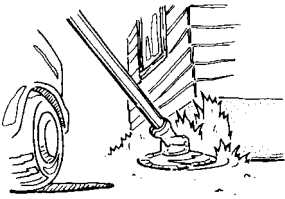
This machine does cutting not by a rotary cutter like conventional trimmers but by a pair of special blades, each upper blade and lower blade oscillate opposite direction alternately within a limited angle at a speed of approximately 1/30 of conventional trimmers.

This unique mechanism brings you many benefits like the following:

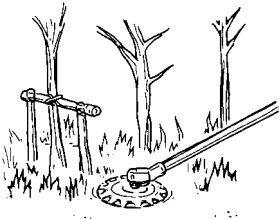
1. Since the blade does not cause grass chips and pebbles to be thrown around, you may use less care about your clothing or surroundings.
2. Should the blade hit a rigid object like stones, trees or steel poles during operation, it does not produce a bounce motion that can cause loss of

## 7. Operation

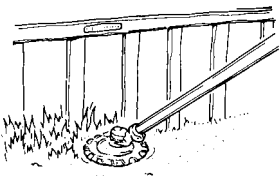
### RECOMMENDED APPLICATIONS:



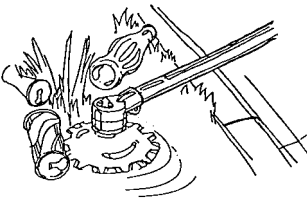
Parking area



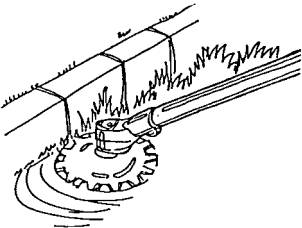
Among trees



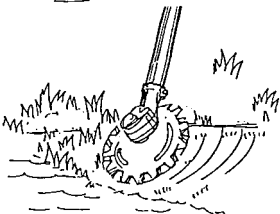
Near fences



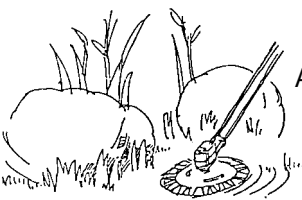
Road side



Road edge



Water side



Around stones

machine control.

3. Since the blade does not cause cut grass to wrap around the neck, you need not to stop operation to remove such wrappers.

What's more, since the whole circle of the blade is available for cutting, you can move the cutting head in all directions and cut grass growing on such place difficult-to-get with conventional trimmer.

You can even trim the waterside without splashing water.

### ■ CUTTING WORK

#### WARNING

1. Always wear eye protection such as safety goggles. Never lean over the rotating cutting head. Rocks or other debris could be thrown into eyes and face and cause serious personal injury.
2. Keep the debris guard attached in place at alltimes when the unit is operated.

- Adjust the front handle to the most comfortable position.
- Start the engine and pull the throttle lever gradually. The blades will start moving as the engine speed goes up.
- To stop the blade motion, simply release the throttle lever. The clutch will disengage and the blades stop moving while the engine keeps idling.
- Move the cutting head as sliding its bottom on the ground. This will help you do the job with less effort.

#### NOTE

- Avoid running the engine at full throttle with no load. Continuous no load full throttle operation can cause damage to the engine and driveshaft.
- Operation at too slow engine speed can cause abnormal vibration of the machine, resulting in short life of driveshaft and clutch parts. If you felt such vibration, use a higher speed range.
- Though the blades are made of harder steel compared to conventional metal blades, continuous cutting in soil will accelerate wear.

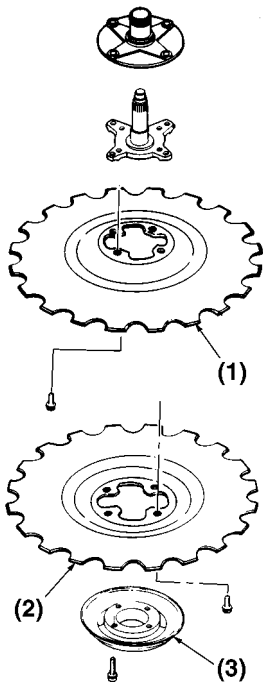
## 8. Maintenance

### ■ MAINTENANCE CHART

	system/component	procedure	before use	every 25 hours after	every 50 hours after	every 100 hours after	note
E N G I N E	fuel leaks, fuel spillage	wipe out	✓				
	fuel tank, air filter, fuel filter	inspect/clean	✓	✓			replace, if necessary
	idle adjusting screw	see ■ADJUSTING IDLING SPEED (p.17)	✓				replace carburetor if necessary
	spark plug	clean and readjust plug gap			✓		GAP: .025in(0.6~0.7mm) replace, if necessary
	cylinder fins, intake air cooling vent	clean		✓			
	muffler, spark arrester, cylinder exhaust port	clean			✓		
S H A R P E N I N G	throttle lever, ignition switch	check operation	✓				
	cutting parts	replace if something's wrong	✓				
	debris guard	make sure to attach	✓				
	gear case / cutter case	grease		✓			
	screws/nuts/bolts	tighten/replace	✓			✓	not adjusting screws

### ■ BLADE MAINTENANCE

MA1



#### ⚠ WARNING

Use protective gloves whenever inspecting, removing, sharpening, and installing the blade.

- Wipe off dust and dirt attached to the blade, and oil it after every use.
- As the extent of wear differs by each cutter depending on use conditions, rotate the blade position at intervals.

#### To Remove Blades: (MA1)

1. Turn over the machine and remove the bottom cover by removing the four cross-slotted screws.
2. Loosen the four socket screws and remove the lower blade.
3. Loosen the four socket screws and remove the upper blade.

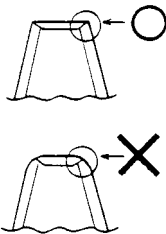
(1) Upper blade (2) Lower blade (3) Bottom cover

#### To Install Blades:

The upper and lower blades are interchangeable. When fastening the blade mounting screws, torque them uniformly (Torque: 100 to 130 in-lbs)(Torque: 11.3 ~ 14.8 N.m.).

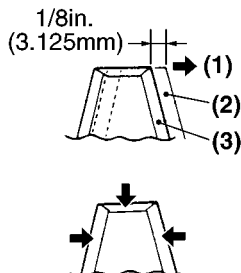
## 8. Maintenance

MA2



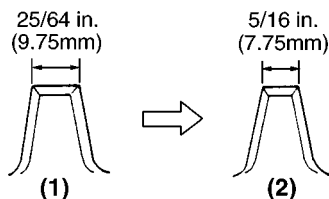
Do not round the corners.

MA3

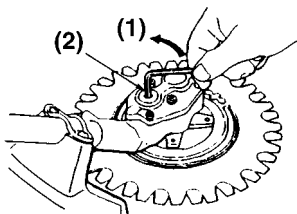


Resharpen these 3 surfaces.

MA4



MA5



### To Sharpen Blade:

1. When the corners of cutter become rounded and the cutting edges become dull, resharpen using a small disk grinder, etc. (MA2)
2. When sharpening, offset the top and bottom blade teeth by 1/8 inches (3.125mm), as shown in the illustration. (MA3)

(1) Offset

(2) Top blade

(3) Bottom blade



**NOTE**

Apply the grinder lightly and quickly. Pressing too strongly or grinding for too long will generate heat which can soften the temper of the blade and accelerate wear.

3. The width of cutter decreases with repeated use and sharpening. Replace with a new blade when the width at the end becomes less than 5/16 in (7.75mm). (MA4)

(1) New blade

(2) Worn out blade



**NOTE**

Using a worn blade can cause chipping of cutters, resulting in a loss of operation time and shorter service life of the machine.

### To Rotate Blade By Hand: (MA5)

When sharpening an old blade or replacing with a new blade, insert the accessory hex wrench into the hex hole in the top of the crankcase and turn strongly 2~3 times. This removes burrs and uneven painting from the blade and makes starting easier.

(1) Turn

(2) Hex wrench

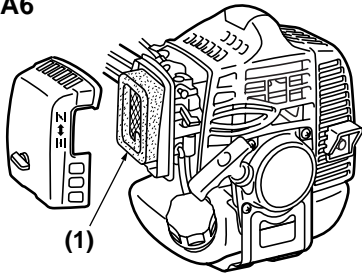


**WARNING**

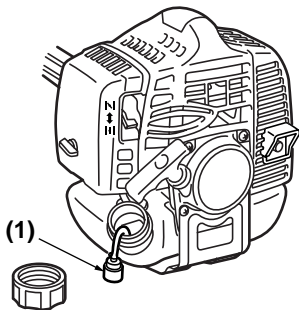
Never perform this operation while the engine is running because this is extremely dangerous. Always stop the engine before inspecting the blade for any reason.

## 8. Maintenance

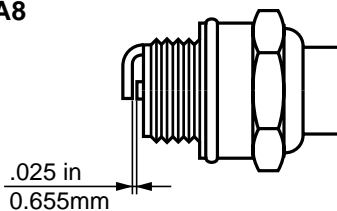
MA6



MA7



MA8



### **⚠ WARNING**

- Make sure that the engine has stopped and is cool before performing any service to the machine. Contact with moving cutting head or hot muffler may result in a personal injury.

#### ■ AIR FILTER

- The air filter, if clogged, will reduce the engine performance. Check and clean the filter element in warm, soapy water as required. Dry completely before installing. If the element is broken or shrunk, replace with a new one. (MA6)

##### (1) air filter

#### ■ FUEL FILTER

- When the engine runs short of fuel supply, check the fuel cap and the fuel filter for blockage. (MA7)

##### (1) fuel filter

#### ■ SPARK PLUG

- Starting failure and mis-firing are often caused by a fouled spark plug. Clean the spark plug and check that the plug gap is in the correct range. For a replacement plug, use the correct type specified by RedMax. (MA8)

- **REPLACEMENT PLUG IS A NGK CMR7A.**

### **❗ IMPORTANT**

- Note that using any spark plug other than those designated may result in the engine failing to operate properly or in the engine becoming overheated and damaged.
- To install the spark plug, first turn the plug until it is finger tight, then tighten it a quarter turn more with a socket wrench.

**TIGHTENING TORQUE:** 87~104 in-lbs  
(9.8~11.8 N.m.)

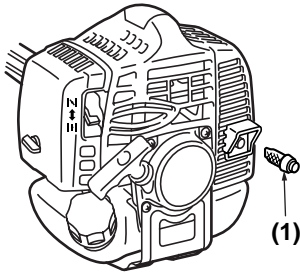
#### ■ MUFFLER

### **⚠ WARNING**

- Inspect periodically, the muffler for loose fasteners, any damage or corrosion. If any sign of exhaust leakage is found, stop using the

## 8. Maintenance

MA9



machine and have it repaired immediately.

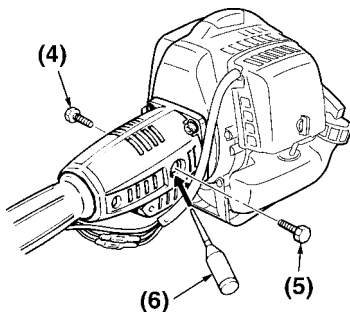
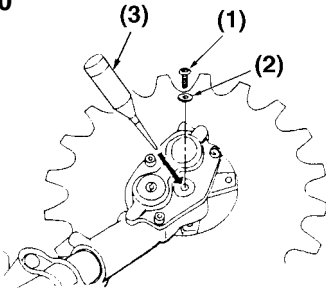
- **Note that failing to do so may result in the engine catching on fire.**

### ■ SPARK ARRESTER

- The muffler is equipped with a spark arrester to prevent red hot carbon from flying out of the exhaust outlet. Periodically inspect and clean as necessary with a wire brush. In the State of California it is required by law (Section 4442 of the California Public Resources Code) to equip a spark arrester when a gas powered tool is used in any forest covered, brush covered, or grass covered unimproved land. (MA9)

#### (1) spark arrester

MA10



### ■ GEARCASE AND CUTTERCASE (MA10)

- Periodically refill the case with grease (every 25 hours).
- Use only lithium based greases.

#### (1) Screw

#### (2) Seal washer

#### (3) Grease: approx. 10cc

#### (4) Air purge

#### (5) Bolt

#### (6) Grease: approx. 5cc

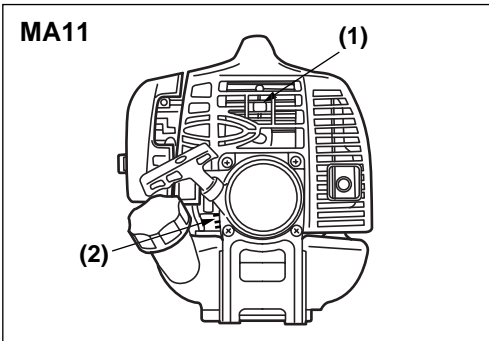
### ■ INTAKE AIR COOLING VENT

#### ⚠ WARNING

- **Never touch the cylinder, muffler, or spark plugs with your bare hands immediately after stopping the engine. The engine can become very hot when in operation, and doing so could result in severe burns.**
- **When checking the machine to make sure that it is okay before using it, check the area around the muffler and remove any wood chips or leaves which have attached themselves to the reciprocator. Failing to do so could cause the muffler to become overheated, and that this in turn could cause the engine to catch on fire. Always make sure that the muffler is clean and free of wood chips, leaves, and other waste before use.**
- Check the intake air cooling vent and the area

## 8. Maintenance

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around the cylinder cooling fins after every 25 hours of use for blockage, and remove any waste which has attached itself to the reciprocator. Note that it is necessary to remove the engine cover shown in (MA11) in order to be able to view the upper part of the cylinder.

### ❗ IMPORTANT

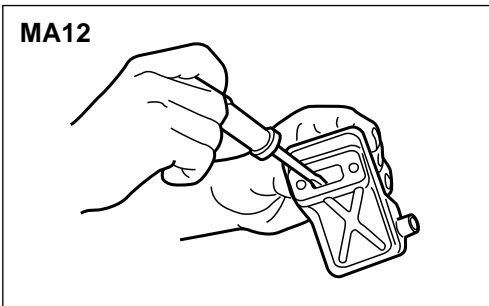
- If waste gets stuck and causes blockage around the intake air cooling vent or between the cylinder fins, it may cause the engine to overheat, and that in turn may cause mechanical failure on the part of the reciprocator. (MA11)

**(1) cylinder**

**(2) intake air cooling vent (back)**

### ■ PROCEDURES TO BE PERFORMED AFTER EVERY 100 HOURS OF USE

1. Remove the muffler, insert a screwdriver into the vent, and wipe away any carbon buildup. Wipe away any carbon buildup on the muffler exhaust vent and cylinder exhaust port at the same time. (MA12)
2. Tighten all screws, bolts, and fittings.
3. Check to see if any oil or grease has worked its way in between the clutch lining and drum, and if it has wipe it away using oil-free, lead-free gasoline.



## 9. Storage

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- Oil the blades.
- Aged fuel is one of major causes of engine starting failure. Before storing the unit, empty the fuel tank and run the engine until it uses all the fuel left in the fuel line and the carburetor. Store the unit indoor taking necessary measures for rust prevention.

## 10. Troubleshooting guide

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### Case 1. Starting failure

CHECK		PROBABLE CAUSES		ACTION
fuel tank	→	incorrect fuel	→	drain it and with correct fuel
fuel filter	→	fuel filter is clogged	→	clean
carburetor adjustment screw	→	out of normal range	→	adjust to normal range
sparkign (no spark)	→	spark plug is fouled/wet	→	clean/dry
	→	plug gap is incorrect	→	correct (GAP: 0.6~0.7mm)
spark plug	→	disconnected	→	retighten

### Case 2. Engine starts but does not keep running/Hard re-starting.

CHECK		PROBABLE CAUSES		ACTION
fuel tank	→	incorrect fuel or staled fuel	→	drain it and with correct fuel
carburetor adjustment screw	→	out of normal range	→	adjust to normal range
muffler,cylinder (exhaust port)	→	carbon is built-up	→	wipe away
air cleaner	→	clogged with dust	→	wash
cylinder fin, fan cover	→	clogged with dust	→	clean

When your unit seems to need further service, please consult with our RedMax service shop in your area.



## 11. Parts list

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### RECIPROCATOR

### SGCZ2500S

**NOTE :**

1. Use KOMATSU ZENOAH genuine parts as specified in the parts list for repair and/or replacement.
2. KOMATSU ZENOAH does not warrant the machines, which have been damaged by the use of any parts other than those specified by the company.
3. When placing parts orders for repair and/or replacement, check if the model name and the serial number are applicable to those specified in the parts list, then use parts number described in the parts list.
4. The contents described in the parts list may change due to improvement.
5. The parts for the machine shall be supplied seven (7) years after the machine is discontinued. [It is possible that some specific parts may be subject to change of their delivery term and list price within the limit of ten (7) years after the machine is discontinued. It is also possible that some parts may be available even after the limit of seven (7) years.]

APPLICABLE SERIAL NUMBERS :

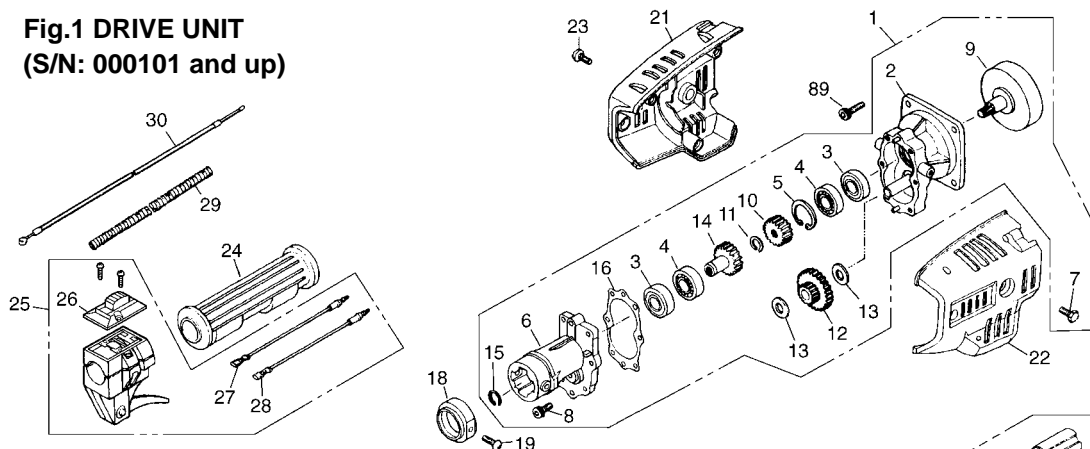
Mar. 2001

DRIVE UNIT 000101 and up

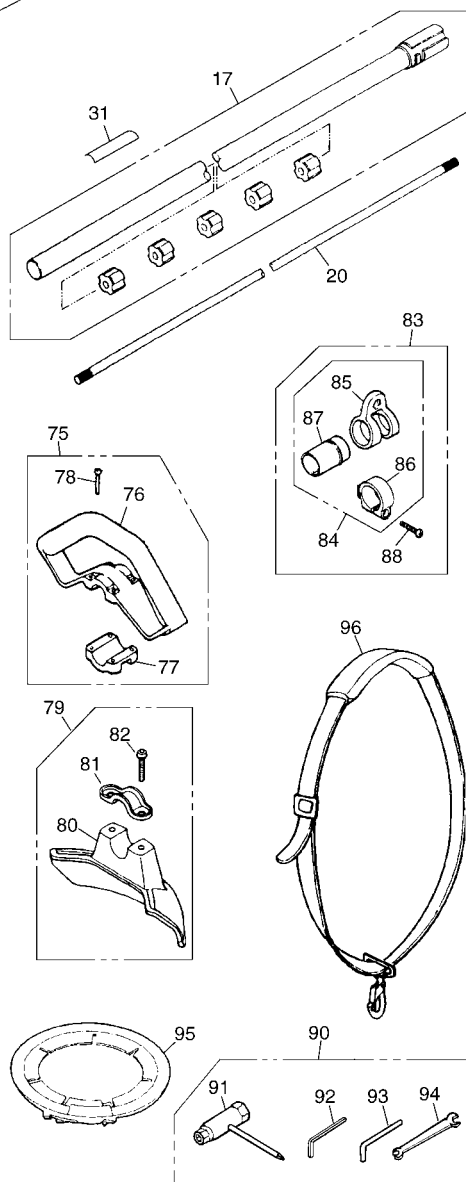
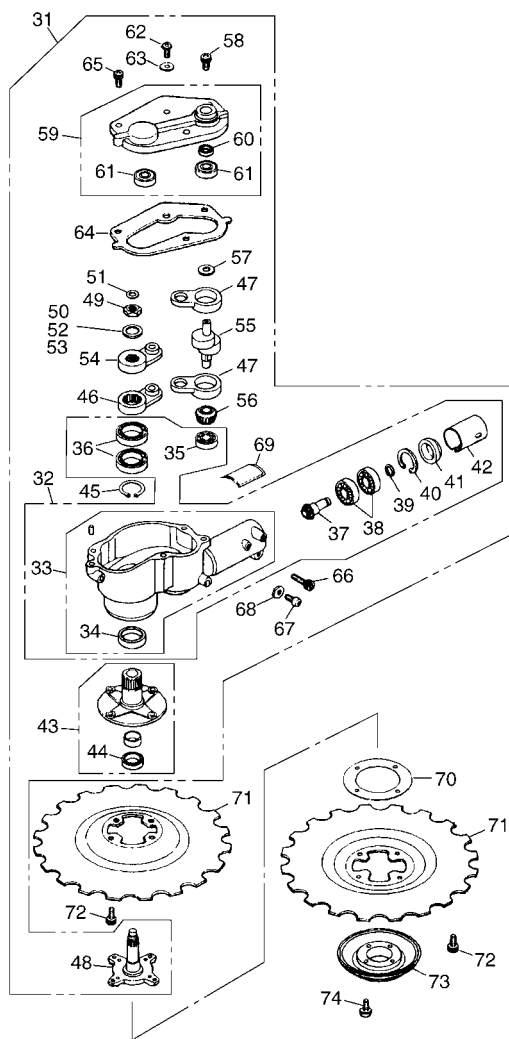
ENGINE UNIT 2842 and up

# 11. Parts list

**Fig.1 DRIVE UNIT**  
(S/N: 000101 and up)



**Fig.2 CASE UNIT (Contended with Engine)**  
(S/N: 2842 and up)



**Fig.1 DRIVE UNIT (S/N: 000101 and up)**

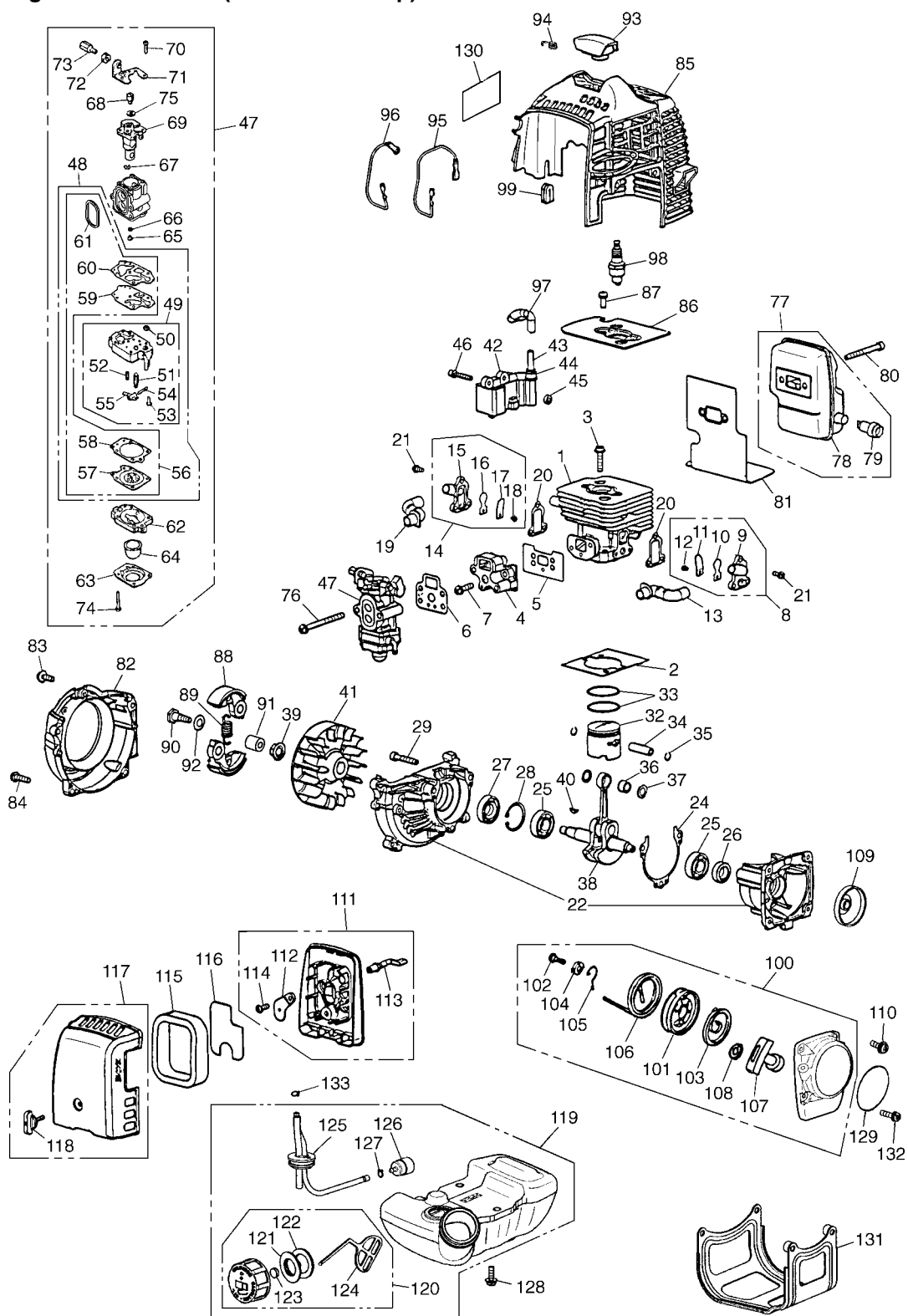
Key#	Description	Part Number	Q'ty	NOTE	Key#	Description	Part Number	Q'ty	NOTE
1	MISSION ASS'Y	T3065-11000	1		30	CABLE COMP	T3002-83100	1	
2	• CASE COMP, rear	3805-11102	1		31	PLATE, name	T3065-12510	1	
3	• BEARING	06002-06001	2						
4	• BEARING	06000-06001	2		75	HANDLE ASS'Y	6420-14100	1	
5	• RING	04065-02812	1		76	• HANDLE	6420-14311	1	
6	• CASE, front	3805-11211	1		77	• CLAMP	6420-14320	1	
7	• BOLT	0225-00608	2		78	• SCREW	0263-90535	4	
8	• BOLT	01252-30520	6		79	GUARD ASS'Y	3565-24001	1	
9	• DRUM	3805-11310	1		80	• GUARD	3565-24111	1	
10	• GEAR, pinion	3805-11320	1		81	• CLAMP	3520-24120	1	
11	• RING	3180-13330	1		82	• BOLT	3540-24130	2	
12	• GEAR, idler	3805-11331	1		83	HANGER ASS'Y	6420-17300	1	OP
13	• WASHER	3805-11370	2		84	• HANGER COMP	6420-17400	1	OP
14	• GEAR, wheel	3805-11360	1		85	•• HANGER	9366-17110	1	OP
15	• RING	3130-13270	1		86	•• CLAMP	9366-17120	1	OP
16	• GASKET	3805-11411	1		87	•• SLEEVE	6420-17410	1	OP
17	PIPE COMP	3805-12100	1		88	• SCREW	0263-90525	1	OP
18	CAP	3565-11341	1		89	BOLT	6468-91150	4	
19	SCREW	0263-90510	2		90	TOOL SET	T1500-91000	1	
20	SHAFT	3805-12210	1		91	• SOKET	T3002-91310	1	
21	COVER, right	3805-11511	1		92	• WRENCH	09007-00425	1	
22	COVER, left	3805-11521	1		93	• WRENCH	09007-00528	1	
23	SCREW	2200-76210	3		94	• SPANNER	3540-91120	1	
24	GRIP	3577-32141	1		95	COVER	6251-15910	1	OP
25	LEVER COMP	T3065-12200	1		96	STRAP ASS'Y	T3002-17200	1	OP
26	• COVER COMP	6110-14410020	1						
27	• CORD(A), black	T3002-12220	1						
28	• CORD(B), red	T3002-12230	1						
29	TUBE	T3002-12240	1						

**Fig.2 CASE UNIT (Contended with Engine) (S/N: 2842 and up)**

Key#	Description	Part Number	Q'ty	NOTE	Key#	Description	Part Number	Q'ty	NOTE
31	CASE ASS'Y	T3065-98000	1		54	• ARM, upper	3805-13612	1	
32	• CASE COMP, cutter	3974-98102	1		55	• CRANKSHAFT	3805-13711	1	
33	•• CASE COMP, cutter	3974-13123	1		56	• GEAR	3805-13720	1	
34	••• SEAL	3805-13130	1		57	• WASHER	01641-20812	1	
35	•• BEARING	06000-00608	1		58	• BOLT	3805-13750	1	
36	•• BEARING	06000-06804	2		59	• COVER COMP	T3065-13800	1	
37	•• PINION	3805-13930	1		60	•• SEAL	3805-13840	1	
38	•• BEARING	06000-06000	2		61	•• BEARING	06000-00608	2	
39	•• RING	3180-13330	1		62	• SCREW	0263-00610	1	
40	•• RING	04065-02612	1		63	• WASHER	01642-20608	1	
41	•• PACKING	3805-13940	1		64	• GASKET	3805-13910	1	
42	•• SPACER	3805-13951	1		65	• BOLT	01252-40520	3	
43	• SHAFT COMP	3805-13200	1		66	• BOLT	3540-13260	1	
44	•• SEAL	3805-13230	1		67	• SCREW	0263-60514	1	
45	• RING	04064-02012	1		68	• WASHER	01642-20508	1	
46	• ARM, lower	3805-13412	1		69	• LABEL	3974-13991	1	
47	• CONROD	3805-13432	2		70	SHIM	3805-13590	1	
48	• SHAFT, inner	3805-13510	1		71	BLADE	T3065-15110	2	
49	• NUT	3805-13520	1		72	BOLT	01252-40608	8	
50	• SHIM, 0.3t	3805-13550	0~1		73	STABILIZER	3805-15140	1	
51	• SHIM	3805-13560	1		74	SCREW	0263-30508	4	
52	• SHIM, 0.2t	3805-13570	0~1						
53	• SHIM, 0.1t	3805-13580	0~1						

# 11. Parts list

**Fig.3 ENGINE UNIT (S/N: 2842 and up)**



**Fig.3 ENGINE UNIT (S/N: 2842 and up)**

Key#	Description	Part Number	Q'ty	Key#	Description	Part Number	Q'ty
1	CYLINDER	4810-12111	1	68	• SWIVEL	1881-81140	1
2	GASKET, base	4810-12210	1	69	• VALVE ASS'Y	—	—
3	BOLT, M5x22	1850-12130	2	70	• SCREW	1752-81110	2
4	INSULATOR	4810-13162	1	71	• BRACKET	5500-81120	1
5	GASKET, insulator	4810-13120	1	72	• NUT, adjuster	1751-81180	1
6	GASKET, carburetor	4810-13130	1	73	• SCREW, adjuster	1918-81170	1
7	SCREW, M5x20	0263-90520	1	74	• SCREW	1850-81530	4
8	REEDVALVE (S)-A	4810-16100	1	75	• WASHER	5500-81160	1
9	• VALVECASE (S)	4810-16110	1	76	SCREW, M5x60	0263-90560	2
10	• REEDVALVE	4810-16120	1	77	MUFFLER ASS'Y	4810-15100	1
11	• STOPPER	4810-16130	1	78	• MUFFLER	4810-15111	1
12	• SCREW, M3x8	4810-16170	1	79	• ARRESTER	4810-15140	1
13	PIPE AIR (S)	4810-16150	1	80	BOLT, M5x50	01252-30550	2
14	REEDVALVE (F)-A	4810-16200	1	81	GASKET	4810-15410	1
15	• VALVECASE (F)	4810-16210	1	82	COVER-A	T1500-31110	1
16	• REEDVALVE	4810-16120	1	83	SCREW	5500-85510	1
17	• STOPPER	4810-16130	1	84	SCREW	0263-90520	4
18	• SCREW, M3x8	4810-16170	1	85	COVER, engine	4810-32111	1
19	PIPE AIR (F)	4810-16160	1	86	PLATE	4810-12310	1
20	GASKET, valve	4810-16140	2	87	SCREW	0263-90510	2
21	SCREW	4810-16180	6	88	SHOE	4820-51110	2
22	CRANKCASE-C	4810-21101	1	89	SPRING	4820-51220	1
24	GASKET	4810-21140	1	90	SCREW	T1500-51250	2
25	BEARING	06030-06001	2	91	WASHER	T1500-51230	2
26	SEAL	4810-21210	1	92	WASHER	1140-51242	2
27	SEAL	1850-21220	1	93	CAP	4810-72110	1
28	SNAP RING	04065-02812	1	94	SPRING	1900-72120	1
29	BOLT, M5x30	01252-30530	3	95	CORD	4810-71240	1
32	PISTON	4810-41110	1	96	CORD, carth	4810-71250	1
33	RING	5910-41210	2	97	TUBE	2850-71320	1
34	PIN	1600-41310	1	98	PLUG, NGK CMR7A	4810-73110	1
35	RING	1260-41320	2	99	GROMMET	4810-72120	1
36	BEARING	5500-41410	1	100	RECOIL ASS'Y	4810-75100	1
37	WASHER	1101-41340	2	101	• REEL	4500-75120	1
38	CRANKSHAFT-O	4810-42000	1	102	• SCREW	4500-75150	1
39	NUT	1650-43230	1	103	• SPRING, spiral	1850-75130	1
40	KEY	1000-43240	1	104	• COLLAR	4500-75180	1
41	ROTOR	5501-71110	1	105	• ARM	4500-75190	1
42	COIL-A	4810-71200	1	106	• ROPE	4810-75160	1
43	• CORD	4810-71220	1	107	• KNOB	3330-75421	1
44	• CAP	2616-71320	1	108	• PLATE, stopper	4810-75170	1
45	SPACER	1260-71261	2	109	PULLEY	4500-75210	1
46	BOLT, M4x22	4500-72150	2	110	SCREW, M5x16	5500-85510	2
47	CARBURETOR ASS'Y, WYA-1B	4810-81001	1	111	BODY ASS'Y	4810-82100	1
48	• REBUILD KIT	4810-06030	1	112	• PLATE, choke	4810-82130	1
49	• BODY ASS'Y	4810-81450	1	113	• LEVER, choke	5500-82140	1
50	• SCREEN	—	—	114	• SCREW	2630-33610	1
51	• VALVE	—	—	115	ELEMENT	4810-82170	1
52	• SPRING	—	—	116	SCREEN	4810-82180	1
53	• SCREW	—	—	117	COVER ASS'Y	4810-82200	1
54	• PIN	—	—	118	• KNOB	5500-82221	1
55	• LEVER	—	—	119	TANK ASS'Y	T1504-85001	1
56	• GASKET KIT	4810-06020	1	120	• CAP ASS'Y	T1015-85202	1
57	• DIAPHRAGM	—	—	121	• HOLDER-A	4500-85300	1
58	• GASKET, diaphragm	—	—	122	• PACKING	4500-85220	1
59	• DIAPHRAGM, pump	—	—	123	• FILTER	5601-85260	1
60	• GASKET, pump	—	—	124	• STOPPER	4820-85260	1
61	• RING	4810-81130	1	125	• PIPE COMP.	4810-85300	1
62	• BODY, purge	1850-81490	1	126	• FLTER ASS'Y	5500-85400	1
63	• COVER, pump	1850-81520	1	127	• CLIP	1260-85460	1
64	• PUMP, priming	1751-81510	1	128	SCREW, M5x16	5500-85510	3
65	• JET #38.5	4810-81251	1	129	LABEL, recoil	—	—
66	• O-RING	1751-81240	1	130	LABEL, cover	4810-31131	1
67	• RING	1751-81130	1	131	GUARD	T1506-31910	1
				132	SCREW	0263-90525	2
				133	CLIP	1950-86120	1

**CALIFORNIA EMISSION CONTROL WARRANTY STATEMENT**  
**YOUR WARRANTY RIGHTS AND OBLIGATIONS**

**The California Air Resources Board** and KOMATSU ZENOAH are pleased to explain the **emission control system warranty** on your **1995 and later** small off-road engine. In California, new small off-road engines must be designed, built and equipped to meet the state's stringent anti-smog standards. KOMATSU ZENOAH must warrant the emission control system on your small off-road engine for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your small off-road engine.

Your emission control system may include parts such as the carburetor and the ignition system.

Where a warrantable condition exists, KOMATSU ZENOAH will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

**Manufacturer's warranty coverage:**

The 1995 and later small off-road engines are warranted for **two years**. If any emission-related part on your engine is defective, the part will be repaired or replaced by KOMATSU ZENOAH.

**Owner's warranty responsibilities:**

- As the small off-road engine owner, you are responsible for the performance of the **required maintenance listed in your owner's manual**. KOMATSU ZENOAH recommends that you retain all receipts covering maintenance on your small off-road engine, but KOMATSU ZENOAH can not deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- As the small off-road engine owner, you should be aware, however, that KOMATSU ZENOAH may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modification.
- You are responsible for presenting your small off-road engine to a KOMATSU ZENOAH distribution center as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed **30 days**.

If you have any questions regarding your warranty rights and responsibilities, you should contact KOMATSU ZENOAH AMERICA INC. at (770)-381-5147 or you can write to

KOMATSU ZENOAH AMERICA INC.  
4344 Shackleford Road Suite 500  
Norcross, Georgia 30093

## RedMax 2-YEAR LIMITED WARRANTY

**EMISSION-RELATED PARTS**, FOR TWO (2) YEARS FROM THE DATE OF ORIGINAL DELIVERY, KOMATSU ZENOAH AMERICA INC. (THE COMPANY), THROUGH ANY RedMax DEALER, WILL REPAIR OR REPLACE, FREE OF CHARGE, FOR THE ORIGINAL AND EACH SUBSEQUENT PURCHASER, ANY PART OR PARTS FOUND TO BE DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP. EMISSION-RELATED PARTS ARE:

**THE CARBURETOR ASSY, COIL ASSY, ROTOR, SPARKPLUG,  
AIR FILTER, FUEL FILTER, INTAKE MANIFOLD, AND THE GASKETS**

**ALL OTHER PARTS EXCEPT ABOVE PARTS**, FOR TWO (2) YEARS OF HOME USE [ ONE (1) YEAR FOR ANY OTHER USE ] FROM THE DATE OF ORIGINAL ANY DELIVERY, THE COMPANY. THROUGH ANY RedMax DEALER, WILL REPAIR OR REPLACE, FREE OF CHARGE, FOR THE ORIGINAL PURCHASER, ANY PART OF PARTS FOUND TO BE DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP. **THIS IS THE EXCLUSIVE REMEDY.**

THE PURCHASER SHALL BEAR COSTS OF TRANSPORTING THE UNIT TO AND FROM THE RedMax DEALER.

THE PURCHASER SHALL NOT BE CHARGED FOR DIAGNOSTIC LABOR WHICH LEADS TO THE DETERMINATION THAT A WARRANTED PART IS DEFECTIVE, IF THE DIAGNOSTIC WORK IS PERFORMED AT THE RedMax DEALER.

THE PURCHASER OR OWNER IS RESPONSIBLE FOR THE PERFORMANCE OF THE REQUIRED MAINTENANCE AS DEFINED BY THE MANUFACTURER IN THE OWNER/OPERATOR MANUAL.

ANY WARRANTED PART WHICH IS NOT SCHEDULED FOR REPLACEMENT AS REQUIRED MAINTENANCE, OR WHICH IS SCHEDULED ONLY FOR REGULAR INSPECTION TO THE EFFECT OF "REPAIR OR REPLACE AS NECESSARY" SHALL BE WARRANTED FOR THE WARRANTY PERIOD. ANY WARRANTED PART WHICH IS SCHEDULED FOR REPLACEMENT AS REQUIRED MAINTENANCE SHALL BE WARRANTED FOR THE PERIOD OF TIME UP TO THE FIRST SCHEDULED REPLACEMENT POINT FOR THE PART.

ANY REPLACEMENT PART THAT IS EQUIVALENT IN PERFORMANCE AND DURABILITY MAY BE USED IN NON-WARRANTY MAINTENANCE OR REPAIRS, AND SHALL NOT REDUCE THE WARRANTY OBLIGATION OF THE COMPANY.

THE COMPANY IS LIABLE FOR DAMAGES TO OTHER ENGINE COMPONENTS CAUSED BY THE FAILURE OF A WARRANTED PARTS STILL UNDER WARRANTY.

**THE WARRANTY DOES NOT APPLY TO THOSE UNITS WHICH HAVE BEEN DAMAGED BY NEGLIGENCE OF INSTRUCTION LISTED IN THE OWNER/OPERATOR MANUAL FOR PROPER USE AND MAINTENANCE OF THE UNITS, ACCIDENT MISHANDLING, ALTERATION, ABUSE, IMPROPER LUBRICATION, USE OF ANY PARTS OR ACCESSORIES OTHER THAN THOSE SPECIFIED BY THE COMPANY, OR OTHER CAUSES BEYOND THE COMPANY'S CONTROL.**

**THIS WARRANTY DOES NOT COVER THOSE PARTS REPLACED BY NORMAL WEAR OR HARMLESS CHANGES IN THEIR APPEARANCE.**

**THERE ARE NO OTHER EXPRESS WARRANTIES.**

**IMPLIED WARRANTIES** INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE **ARE LIMITED** TO TWO (2) YEARS OF HOME USE [ ONE (1) YEAR FOR ANY OTHER USE ] FROM THE ORIGINAL DELIVERY DATE.

**LIABILITIES FOR INCIDENTAL OR CONSEQUENTIAL DAMAGE UNDER ANY AND ALL WARRANTIES ARE EXCLUDED.**

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

IF YOU NEED TO OBTAIN INFORMATION ABOUT THE NEAREST SERVICE CENTER, PLEASE CALL KOMATSU ZENOAH AMERICA INC. AT (770)-381-5147.

**IMPORTANT:** YOU WILL RECEIVE A WARRANTY REGISTRATION CARD AT TIME OF PURCHASE. PLEASE FILL OUT THE CARD AND SEND IT TO RedMax / KOMATSU ZENOAH AMERICA WITHIN SEVEN (7) DAYS. BE SURE TO KEEP A COPY FOR YOUR RECORDS.



KOMATSU ZENOAH AMERICA INC.  
4344 Shackelford Road Suite 500  
Norcross, Georgia 30093

## RedMax Garantie limitée à 2 ans

**Pièces en rapport avec les émissions de gaz d'échappement :** KOMATSU ZENOAH AMERICA INC., par l'intermédiaire de n'importe quel revendeur RedMax, réparera gratuitement ou remplacera gratuitement pour l'acheteur initial et chaque acheteur successif toute(s) pièce(s) se révélant de constitution et/ou de montage défectueux pendant deux (2) ans à compter de la date initiale de livraison d'une unité. Les pièces en rapport avec les émissions de gaz d'échappement sont:

**l'assemblage carburateur, l'assemblage bobine, le rotor, la bougie,  
le filtre à air, le filtre à carburant, la tubulure d'admission et les joints**

**Toutes autres pièces exceptées celles mentionnées ci-dessus :** La société, par l'intermédiaire de n'importe quel revendeur RedMax, réparera gratuitement ou remplacera gratuitement pour l'acheteur initial toute(s) pièce(s) se révélant de constitution et/ou de montage défectueux pendant deux (2) ans en cas d'utilisation privée [un (1) an pour toute autre utilisation] à compter de la date de livraison initiale d'une unité. **Telles sont les limites de la garantie.**

Le coût du transport de l'unité jusqu'au revendeur RedMax et depuis celui-ci sera à la charge de l'acheteur.

L'acheteur ne supportera pas le coût de main d'oeuvre du diagnostic qui amène à la conclusion qu'une pièce garantie est défectueuse, si ce diagnostic est effectué chez le revendeur RedMax.

L'acheteur ou propriétaire a pour responsabilité d'effectuer l'entretien obligatoire tel que défini par le fabricant dans le manuel du propriétaire/de l'utilisateur.

Toute pièce garantie dont le remplacement n'est pas prévu dans le cadre de l'entretien obligatoire, ou pour laquelle est seulement prévue une inspection périodique pour "remplacement ou réparation si nécessaire" sera garantie pour la période de garantie. Toute pièce garantie arrivée à l'échéance de son premier remplacement prévu sera garantie jusqu'à celui-ci.

Toute pièce de rechange équivalente en performance ou en durabilité peut être utilisée pour l'entretien hors-garantie ou les réparations hors-garantie, et ce sans réduire l'obligation de garantie incombant à la société.

La société sera tenue responsable des dommages aux autres composants du moteur causés par la défaillance de pièce(s) garantie(s) en période de garantie.

**La garantie ne s'applique pas** aux unités endommagées par suite de: négligence dans la mise en oeuvre des instructions spécifiées dans le manuel du propriétaire/de l'utilisateur en vue d'une utilisation et d'un entretien correct, fausse manœuvre accidentelle, modification, utilisation abusive, lubrification incorrecte, utilisation de pièces ou d'accessoires autres que ceux spécifiés par la société, ou autres causes hors du contrôle de la société.

**Cette garantie ne couvre pas** les pièces remplacées en raison de leur usure normale ou de changements d'apparence sans effets.

**Il n'existe aucune autre garantie explicite.**

**Les garanties implicites**, celles de négociabilité du produit et de son adaptabilité à un usage défini incluses, **sont limitées** à deux (2) ans pour un usage privé [un (1) an pour toute autre utilisation] à compter de la date initiale de livraison.

**Les responsabilités pour les dommages conséquents ou incidents sont exclues de toutes les garanties.**

Certaines provinces n'autorisant pas les limitations à la durée des garanties implicites, ou les exclusions ou limitations relatives aux dommages incidents ou conséquents, la limitation indiquée ci-dessus peut ne pas vous être applicable.

Cette garantie vous donne des droits juridiques spécifiques, et vous pouvez également jouir d'autres droits variant d'une province à l'autre.

Si vous désirez obtenir des informations sur le centre de service le plus proche, veuillez appeler KOMATSU ZENOAH AMERICA INC. au (770)-381-5147

**Note importante:** vous recevrez une carte d'enregistrement de garantie au moment de l'achat. Veuillez la remplir et l'adresser à RedMax / KOMATSU ZENOAH AMERICA sous sept (7) jours en prenant soin de conserver une copie pour vous.



**RedMax**®

KOMATSU ZENOAH AMERICA INC.  
4344 Shackelford Road Suite 500  
Norcross, Georgia 30093